

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022082**Date Inspected:** 07-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang, Qiu Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Trial Assembly, OBG Segment 12AE-12BE

This QA Inspector performed verification Ultrasonic Testing (ABF Request No: 01062011-1) in accordance with ABF/CT Pattern "D" UT Procedure 001 Revision 1. All recordable Indications if found were recorded on a separate data sheet that Caltrans QA generates after performing a joint inspection with ABF ultrasonic testing personnel. The location of the inspection was identified as welds between deck panels (DP) of segment 12AE to deck panels of segment 12BE and welds between side panels (SP) of segment 12AE to side panels of segment 12BE. The weld designations were as;

OBE12-003 (12AE-12BE DP-A1)

CA6502-009 (12AE-12BE DP-A2)

CA6502-008 [12AE-12BE SP-C4 (BK SIDE)]

OBE12D-003 [12AE-12BE SP-C5 (BK SIDE)]

During Ultrasonic Testing of weld joint OBE12-003, one rejectable Transverse Linear Indication (TLI) with dB rating +15 observed and confirmed with AB/F NDT personnel. This issue has been discussed with CT lead QA and as per discussion no Incident Report to be generated. AB/F agreed to do repair as comply with contract

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documents.

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W

Repair welding of weld joint no: SEG3020AA-024 [Bottom Plate (BP) 3093A to Longitudinal Diaphragm (LD) 3048A, CJP weld in between Panel Points (PP) 127~127.5]. The welder is identified as 201215 and was observed welding in the 2G position. Welding process was identified as Flux Cored Arc Welding (FCAW). ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-FCAW-2G(2F)-ESAB-Repair-FCM. Repair welding was done as per Critical Welding Repair Report (CWR): B-CWR 2657 Rev-0.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AL-025 [Side Plate (SP) 3140A to Floor Beam (FB) 3317A, complete joint penetration (CJP) weld, at PP125]. The welder is identified as 045246 and was observed welding in the 4G position. ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AL-026 [Side Plate (SP) 3140B to Floor Beam (FB) 3317A, complete joint penetration (CJP) weld, at PP125]. The welder is identified as 047864 and was observed welding in the 4G position. ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020BB-064 [Sub Assembly (SA) plate SA3450A to Bottom Plate (BP) 3090A, CJP weld in between panel point (PP) 125~126]. The welder is identified as 067949 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020BB-073 [Sub Assembly (SA) plate SA3451A to Bottom Plate (BP) 3090A, CJP weld in between panel point (PP) 125~126]. The welder is identified as 066236 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020BB-105 [Sub Assembly (SA) plate SA3448A to Floor Beam (FB) 3315A, CJP weld at panel point (PP) 125]. The welder is identified as 066695 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

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Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer
